Remarks and Arguments

1. The Office Action Summary page is incorrect where it says that the Office Action is a response to a communication filed on February 20. The actual filing date was February 16 as evidenced by the Express Mail Certificate and post office receipt, and Postal Service web page showing the progress of the Express Mail.
In addition, the claims listed as pending should also include claims 16-20. See Applicant's Response of February 16, 2007 and Applicant's Response of July 24, 2006. Page 2 of the Office Action of May 2, 2007 also refers to claims 14-20.

2. The Specification is objected to because it is allegedly not sufficiently descriptive.

The title is expanded to read as set out above, using material from the original Abstract.

3. Claims 1-12, and 14-20 are rejected under Section 112, and 132 as allegedly new matter.

While the Applicant strongly believes that PID loop controllers are inherently present in the original Specification, the Applicant has amended the claims merely to clarify and make explicit the terms in the claims and to demonstrate that these particular terms are explicitly found in the original specification, for example in the middle paragraph on page 14 of the original Application, and in the Tests section on pages 16-17 of the original Application where it is stated that the Honeywell and Siemens systems are "distributed control systems". Therefore the terms in the claims as amended above have

crystal clear **support in the original Application**, and the **tests demonstrate that the Applicant had possession of the invention** at the time the Application was filed. Affidavits from the independent engineers mentioned n the "Tests" section can be provided if required.

The material added to the Specification in Sections B and C on page 3 of the February 16, 2007 Request For Continued Examination is cancelled.

4. Claims 1-7, 9-12, 14, and 16-20 are rejected under Section 103 on the basis of Gillis and Thomas.

Applicant disagrees with the statements about the contents of Gillis and Thomas on pages 4-7 of the Office Action, but this disagreement is now moot because it is clear that the combination of Gillis and Thomas do **not contain the terms, or their equivalents, in the above amended claims: Single Loop Controller, Programmable Logic Controller, or Distributed Control System.**

In addition Applicant strongly asserts that it is improper to combine Gillis and Thomas because they are from **radically different fields***, including electrical control systems. Gillis is about creating wizards; there are no references to control equipment

Thomas is from a different field to our invention.

Thomas (2002/0054096) Abstract:

"A power management control system ("PMCS") provides control and graphical representation of a plurality of electrical devices and components of an electrical distribution system. The PMCS includes a customized tabular display with database links for viewing selected, metered data provided by various intelligent electronic devices and components of the electrical distribution system. The Custom Table Wizard provides a simple method of selecting and displaying important parameters to the user during operation of the PMCS."

This clearly indicates the Thomas invention is concerned with "electronic devices and components of an electrical distribution system". **Such devices are not Single loop controllers, programmable logic controllers or distributed control systems.** The Thomas document was searched for the terms: SLC, PLC, DCS, "single loop", "programmable logic" and "distributed control system". There were no matches.

Below are accepted definitions of "Electrical Distribution System", "Closed loop controller", "programmable logic controller (PLC)" and "Distributed Control System (DCS)". A person with a rudimentary knowledge of process control will be aware that a "Single loop controller" is a PID controller and is therefore a "Closed loop controller".

An electrical distribution system does not contain single loop controllers, PLCs or DCSs. These devices and systems are concerned with the control of manufacturing processes. An Electrical Distribution system is not concerned with manufacturing processes.

Definitions of an Electrical Distribution System.

Reference: http://en.wikipedia.org/wiki/Electric_distribution_systems:

> Electricity distribution is the penultimate stage in the delivery before retail of electricity to end users. It is generally considered to include medium-voltage (less than 50 kV) power lines, electrical substations and pole-mounted transformers, low-voltage (less than 1000 V) distribution wiring and sometimes electricity meters.

Reference: http://www.globalsecurity.org/security/intro/power.htm:

> Modern power grids are extremely complex and widespread. Surges in power lines can cause massive network failures and permanent damage to multimillion-dollar equipment in power generation plants. After electricity is produced at power plants it has to get to the customers that use the electricity. As generators spin, they produce electricity with a voltage of about 25,000 volts [a volt is a measurement of electromotive force in electricity, the electric force that pushes electrons around a circuit]. The transmission and distribution system delivers electricity from the generating site (electric power plant) to residential, commercial, and industrial facilities.

The electricity first goes to a transformer at the power plant

that boosts the voltage up to 400,000 volts for distribution through extra-high voltage (EHV) transmission lines. When electricity travels long distances it is better to have it at higher voltages since the electricity can be transferred more efficiently at high voltages. High voltage transmission lines carry electricity long distances to a substation. At transmission substations a reduction in voltage occurs for distribution to other points in the system through high voltage (HV) transmission lines. Further voltage reductions for commercial and residential customers take place at distribution substations, which connect to the primary distribution network.

Utility transmission and distribution systems [T&D] systems link electric generators with end users through a network of power lines and associated components. In the United States typically the transmission portion of the system is designated as operating at 69 kilovolts (kV) and above, while the distribution portion operates between 110 volts and 35 kV. A further distinction is often made between primary distribution (voltages between 2.4 and 35 kV) and secondary distribution (110 to 600 volt) systems. Industrial and commercial customers with large power demands often receive service directly from the primary distribution system.

Definitions of a Single Loop Controller (or Closed Loop Controller)

Reference: http://en.wikipedia.org/wiki/Closed-loop_controller:

A common closed-loop controller architecture is the PID controller . The output of the system [y(t)] is fed back to the reference value [r(t)], through a sensor measurement. The controller [C] then takes the error [e] (difference) between the reference and the output to change the inputs /u/ to the system under control [P]. This is shown in the figure. This kind of controller is a closed-loop controller or feedback controller.

Reference: http://www.spiraxsarco.com/resources/steam-engineering-tutorials/basic-control-theory/computers-in-control.asp:

A dictionary definition of the term 'computer' is 'a programmable electronic device that can store, retrieve, and process data'. This definition includes the basic, single and multi-loop controllers commonly found in process industries where a condition is read by a sensor, compared to a set point in the controller via some mathematical routines performed to determine the corrective action required, followed by an output of an appropriate signal.

Definitions of a Programmable Logic Controller

Reference: http://en.wikipedia.org/wiki/Programmable_Logic_Controller:

A Programmable Logic Controller, PLC, or Programmable Controller or Logic Box is an electronic device used for automation of industrial processes, such as control of machinery on factory assembly lines.

Reference:http://www.searcheng.co.uk/articles/plc/intro.html:

This article provides a brief introduction into the history and development of programmable logic controllers for the automation and control of industrial processes, plant and machinery. PLC's were initially developed to perform basic sequencing which was originally carried out by relay based control panels, as they have developed within industry, and with the introduction of SCADA and HMI Graphical User Interfaces (GUI), the requirements have expanded to providing control and management functionality.

Definitions of a Distributed Control Systems

Reference:http://en.wikipedia.org/wiki/Distributed_control_system:

Distributed Control Systems (DCSs) are dedicated systems used to control manufacturing processes that are continuous or batch-oriented, such as oil refining, petrochemicals, central station power generation, pharmaceuticals, food & beverage

manufacturing, cement production, steelmaking, and papermaking. DCSs are connected to sensors and actuators and use setpoint control to control the flow of material through the plant.

Reference: United States Patent 5796606:

Distributed control systems (DCS) were introduced in the market in the 1970s to replace the conventional panelboard systems, which were becoming inefficient. DCS's are now the minimal standard in several industries such as the pulp and paper industry and the petrochemical industry. The purpose of these DCS's is to stabilize flows, pressures, levels etc., to minimize as much as possible the variance in these process variables. Direct repercussions of this minimization are improved product quality and higher production rates.

The purpose of Distributed control systems is to stabilize flows, pressures, levels etc., to minimize as much as possible the variance in these process variables.

The above references define the terms "Programmable Logic Controller", "Distributed Control Systems" and "Single Loop Controllers." These terms all apply to systems and equipment used for the automation of industrial processes. These three terms are used in the text of the present invention which applies to these three entities. It is therefore clear that the **present invention does not apply to an "Electrical Distribution System"** which is also fully described in the references above. In the definitions and description of

an Electrical Distribution System there is no mention of the automation or control of industrial processes, plant and machinery.

It would **therefore not be obvious to combine** the Thomas and Gillis patents to come up with the present invention.

5. Claims 8 and 15 are rejected under Section 103 on the basis of Gillis, Thomas, and Gauthier.

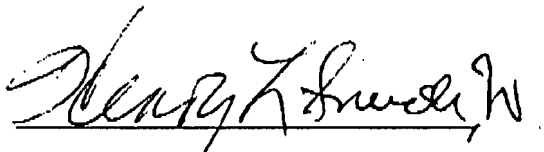
As stated above, these claims cannot read on the combination of these three patents because **the following term claims, or their equivalents, are clearly missing in these patents: Single Loop Controller, Programmable Logic Controller, or Distributed Control System.** In addition, the patents are from **radically different fields*** which makes a 103 rejection improper. Thomas as discussed above relates to electric power distribution systems. Gillis 6871340 is a another patent about creating wizards. There are no references to control equipment. Gauthier 6502234 is a patent about creating wizards. There are no references to control equipment.

(*Applicant believes that the bold face arguments, with asterisk, against obviousness are very familiar to the Examiner. Exact citations to cases and the MPEP will be provided on request.)

Conclusion

Because of the above amendments, and because of the above discussion and arguments, Applicant respectfully submits that the Application, with claims as amended above, is now in condition for allowance, and that action is urgently requested.

Respectfully Submitted,



Henry L. Smith, Jr.

Reg. # 31,425

JUNE 26, 2007

9273 Cornell Circle

Highlands Ranch, CO 80130-4141

Telephone (303) 346-5045

Fax (303) 346-5045

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Henry L. Smith, Jr. #31,425, Attorney of Record.